

**U.S. FISH AND WILDLIFE SERVICE  
SPECIES ASSESSMENT AND LISTING PRIORITY ASSIGNMENT FORM**

SCIENTIFIC NAME: *Calypttranthes estremerae*

COMMON NAME: no common name

LEAD REGION: 4

INFORMATION CURRENT AS OF: September 27, 2005

**STATUS/ACTION:**

☐ Species assessment- determined species did not meet the definition of endangered or threatened under the Act and, therefore, was not elevated to Candidate status

☐ New candidate

☒ Continuing candidate

☐ Non-petitioned

☒ Petitioned - Date petition received: May 11, 2004

☐ 90-day positive - FR date:

☐ 12-month warranted but precluded - FR date:

☐ Did the petition request a reclassification of a listed species?

**FOR PETITIONED CANDIDATE SPECIES:**

a. Is listing warranted (if yes, see summary of threats below)? Yes

b. To date, has publication of a proposal to list been precluded by other higher priority listing actions? Yes

c. If the answer to a. and b. is "yes", provide an explanation of why the action is precluded. We find that the immediate issuance of a proposed rule and timely promulgation of a final rule for this species has been, for the preceding 12 months, and continues to be, precluded by higher priority listing actions (including candidate species with lower LPNs). During the past 12 months, almost our entire national listing budget has been consumed by work on various listing actions to comply with court orders and court-approved settlement agreements, meeting statutory deadlines for petition findings or listing determinations, emergency listing evaluations and determinations, and essential litigation-related, administrative, and program management tasks. We will continue to monitor the status of this species as new information becomes available. This review will determine if a change in status is warranted, including the need to make prompt use of emergency listing procedures. For information on listing actions taken over the past 12 months, see the discussion of "Progress on Revising the Lists," in the current CNOR which can be viewed on our Internet website (<http://endangered.fws.gov/>).

☐ Listing priority change

Former LP: ☐

New LP: \_\_\_\_

Date when the species first became a Candidate (as currently defined): October 25, 1999

\_\_\_\_ Candidate removal: Former LP: \_\_\_\_

\_\_\_\_ A – Taxon is more abundant or widespread than previously believed or not subject to the degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status.

\_\_\_\_ U – Taxon not subject to the degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status due, in part or totally, to conservation efforts that remove or reduce the threats to the species.

\_\_\_\_ F - Range is no longer a U.S. territory.

\_\_\_\_ I - Insufficient information exists on biological vulnerability and threats to support listing.

\_\_\_\_ M - Taxon mistakenly included in past notice of review.

\_\_\_\_ N - Taxon may not meet the Act's definition of "species."

\_\_\_\_ X - Taxon believed to be extinct.

ANIMAL/PLANT GROUP AND FAMILY: Flowering plant - Myrtaceae

HISTORICAL STATES/TERRITORIES/COUNTRIES OF OCCURRENCE: Puerto Rico

CURRENT STATES/TERRITORIES/COUNTRIES OF OCCURRENCE: Puerto Rico

LAND OWNERSHIP: Both known localities occur on land managed by Commonwealth of Puerto Rico; the Cavernas de Camuy is administered and managed by the Parks Authority and the Río Abajo Forest by the Puerto Rico Department of Natural and Environmental Resources.

LEAD REGION CONTACT: Richard Gooch, 404/679-7124

LEAD FIELD OFFICE CONTACT: Dr. Jorge E. Saliva, Caribbean Field Office, 787/851-7297

#### BIOLOGICAL INFORMATION:

##### Species Description

*Calypttranthes estremerae* is a small tree, reaching 10 to 15 meters in height. Young twigs are compressed and glandular-punctate. Leaves are elliptic, broadly elliptic or suborbicular, from seven to ten centimeters (2.7 to 3.9 inches) long, 5 to 5.7 cm (1.9 to 2.2 inches) broad, rounded at the apex, and rounded or obtuse at the base. Leaves are also glandular-punctate on both surfaces and chartaceous. Inflorescences are two to four, paniculate with peduncle up to six centimeters long. The flowers are white and the fruit unknown (Liogier 1994).

##### Taxonomy

William Estremera discovered *Calyptranthes estremerae* in the area of Camuy, Puerto Rico, and described it in 1985. Separated from other *Calyptranthes* species because its flowers are paniculate and leaves are elliptic to broadly elliptic or suborbicular, 7-10 cm long.

#### Habitat/Life History

All individuals are found within the subtropical moist forest life zone, the most extensive life zone in Puerto Rico, overlying a limestone substrate. Those individuals at the Cavernas de Camuy occur in an area that was previously disturbed by the development of the recreation area. The Río Abajo Commonwealth Forest is located in the municipalities of Utuado and Arecibo. The forest has very irregular topography, subterranean drainage, caves, natural depressions or sinkholes and haystack hills or “mogotes” typical of karst geological formation. Mean annual precipitation is approximately 200 centimeters (78 inches). Soils are limestone derived and well drained. The vegetation has been described as semi-evergreen and deciduous forest (Department of Natural Resources 1976).

#### Historical Range/Distribution

This endemic tree was originally known only from the area of the Cavernas de Camuy (Camuy Caves) in the municipality of Camuy, northwestern Puerto Rico. Several individuals are known from the recreation area adjacent to the Caves (Estremera, personal communication 1999).

#### Current Range/Distribution

A specimen of *Calyptranthes estremerae* was later reported from the Río Abajo Commonwealth Forest, in northern Puerto Rico. During the Biological Assessment conducted for the construction of Highway #10 through the Río Abajo Commonwealth Forest, an additional four individuals in two groups were located. All four trees were small, approximately two meters (6.6 feet) in height, and were to be affected by the construction of the highway. One individual was transplanted and still survives in the Puerto Rico Department of Natural and Environmental Resources' nursery (Vida, personal communication 1999, Puerto Rico Highway and Transportation Authority 1994).

#### Population Estimates/Status

Additional surveys conducted as part of the mitigation plan for the impacts of Highway #10 yielded more than 50 individuals of *Calyptranthes estremerae*, and at least up to 100 individuals may be found within the Río Abajo forest (Vives, personal communication 2004). Surveys in areas not covered under the mitigation plan may yield additional individuals (Vives, personal communication 2004); therefore, current population estimates are not known because surveys of the potential habitat for this species have not been completed.

#### THREATS:

- A. The present or threatened destruction, modification, or curtailment of its habitat or range. Four individuals were eliminated for the construction of Road #10 through the Río Abajo Commonwealth Forest, one of which was transplanted to the Puerto Rico Department of Natural and Environmental Resource's nursery. While several individuals remain at the Cavernas de Camuy, and the Puerto Rico Department of Natural and Environmental Resources is aware of their presence, they are located in an area of the facilities where any expansion might result in their elimination. Additional facilities, such as a hotel, have recently been proposed for development in the Río Abajo Commonwealth Forest, despite its public ownership.
- B. Overutilization for commercial, recreational, scientific, or educational purposes. These factors have not been documented as threats to *Calypttranthes estremerae*.
- C. Disease or predation. Neither disease nor predation has been documented as threats to this species.
- D. The inadequacy of existing regulatory mechanisms. The Commonwealth of Puerto Rico has adopted a regulation that recognizes and provides protection for certain Commonwealth listed species. Actions that may impact listed species are generally scrutinized, and measures to minimize or avoid impacts to this species are recommended and implemented, if deemed appropriate. However, *Calypttranthes estremerae* is not yet on the list of protected species. Federal listing would provide some level of immediate protection under the Endangered Species Act. By virtue of an existing cooperative agreement with the Commonwealth under section 6 of the Endangered Species Act, Federal listing will also ensure the addition of this species to the Commonwealth list of vulnerable, threatened, and endangered species. The Río Abajo Commonwealth Forest does not currently have a management plan that considers the protection of this species.
- E. Other natural or manmade factors affecting its continued existence. One of the most important factors affecting the continued survival of *Calypttranthes estremerae* is its limited distribution. Catastrophic natural events, such as Hurricane Georges in 1998, may dramatically affect forest species composition and structure. The falling of large trees creates numerous canopy gaps, which may affect this species. Inadvertent forest fires from tossing lit up cigarettes along Road #10 and adjacent to the Río Abajo Commonwealth Forest, particularly during the dry season threaten nearby specimens of *Calypttranthes estremerae*.

#### CONSERVATION MEASURES PLANNED OR IMPLEMENTED:

The transplanting of a specimen of *Calypttranthes estremerae* from the wild population by the Puerto Rico Department of Natural and Environmental Resources, to prevent its destruction during construction of a highway, was successful.

SUMMARY OF THREATS (including reasons for addition or removal from candidacy, if appropriate):

The small number of individuals of *Calypttranthes estremerae* in the two populations, the species' limited distribution, potential for catastrophic natural events, and potential destruction of specimens due to expansion of recreational facilities, threaten this species. These threats are not imminent, because the largest known population is found within the Río Abajo Commonwealth Forest that afford some level of protection; however, they provide sufficient information on biological vulnerability to maintain *Calypttranthes estremerae* as a candidate species, albeit issuance of the proposed rule on this species is precluded by higher-priority listing actions.

#### LISTING PRIORITY

THREAT			
Magnitude	Immediacy	Taxonomy	Priority
<b>High</b>	Imminent	Monotypic genus	1
		Species	2
		Subspecies/population	3
	<b>Non-imminent</b>	Monotypic genus	4
		<b>Species</b>	<b>5*</b>
		Subspecies/population	6
Moderate to Low	Imminent	Monotypic genus	7
		Species	8
		Subspecies/population	9
	Non-imminent	Monotypic genus	10
		Species	11
		Subspecies/population	12

Rationale for listing priority number:

#### *Magnitude:*

*Calypttranthes estremerae* has a restricted distribution that renders this species vulnerable to natural (e.g., fires, hurricanes, landslides) or manmade (e.g., construction projects, recreational activities) threats to its habitat and populations. Recreational activities and potential widening of Road #10, within areas where the species is found, may affect a significant proportion of the species, and catastrophic natural events may affect both known populations.

#### *Imminence:*

Although one of the areas where individuals of *Calypttranthes estremerae* have been found is actively managed for public recreational use (therefore, threatening to affect this species), the other known population occurs within the Río Abajo Commonwealth Forest administered and

managed by the Puerto Rico Department of Natural and Environmental Resources. Although at present a specific management plan for the Río Abajo Commonwealth Forest has not been prepared, management plans for Commonwealth forests include the protection and conservation of species classified under Puerto Rico Department of Natural and Environmental Resources' regulations as critical, threatened, or endangered. Actions that may impact such species are generally scrutinized, and measures to minimize or avoid impacts to these species are recommended and implemented, if deemed appropriate. Additionally, some areas in the karstic region of northwestern Puerto Rico that have not yet been surveyed may contain individuals of *Calypttranthes estremerae*.

Rationale for Change in Listing Priority Number (insert if appropriate):

Yes Have you promptly reviewed all of the information received regarding the species for the purpose of determining whether emergency listing is needed?

Is Emergency Listing warranted? No. At the time of this review, there was no indication that threats to *Calypttranthes estremerae* have increased, or that the population numbers have been reduced from previous numbers.

#### DESCRIPTION OF MONITORING:

Additional individuals of *Calypttranthes estremerae* were found during surveys of the distribution and abundance of this species, as part of mitigation plans for construction of a highway through the Río Abajo Commonwealth Forest in 2000. The Service has not conducted surveys to determine if *Calypttranthes estremerae* is found in suitable areas outside localities currently known; however, Dr. Miguel Vives, who has worked on this species before, informed the Service in 2004 that he had no knowledge of further surveys to locate this species.

#### COORDINATION WITH STATES:

The Puerto Rico Department of Natural and Environmental Resources manages the Río Abajo Commonwealth Forest, where one of the known populations of *Calypttranthes estremerae* is found, and regulates activities within the forest that may affect this species. The Service worked closely with the Puerto Rico Department of Natural and Environmental Resources on the mitigation plan for the construction of Highway #10, for which the Puerto Rico Department of Natural and Environmental Resources successfully transplanted a number of specimens of *Calypttranthes estremerae* within the forest boundaries, to prevent their destruction during construction of the road.

Indicate which State(s) did not provide any information or comments: N/A

#### LITERATURE CITED:

Department of Natural Resources. 1976. The Master Plan for the Commonwealth Forests of Puerto Rico. Department of Natural Resources, San Juan, Puerto Rico. 259 pp.

Liogier, H. A. 1994. Descriptive flora of Puerto Rico and adjacent islands. Volume III. Cyrillaceae to Myrtaceae. Editorial de la Universidad de Puerto Rico. Rio Piedras, Puerto Rico. 461 pp.

Puerto Rico Highway and Transportation Authority. 1994. Biological Assessment for the Relocation of Highway #10, Utuado, Puerto Rico. San Juan, Puerto Rico.

APPROVAL/CONCURRENCE: Lead Regions must obtain written concurrence from all other Regions within the range of the species before recommending changes, including elevations or removals from candidate status and listing priority changes; the Regional Director must approve all such recommendations. The Director must concur on all resubmitted 12-month petition findings, additions or removal of species from candidate status, and listing priority changes.

Approve: /s/ Jeffrey M. Fleming 11/16/2005  
Acting Regional Director, Fish and Wildlife Service Date



Concur: \_\_\_\_\_ August 23, 2006  
Acting Director, Fish and Wildlife Service Date

Do Not Concur: \_\_\_\_\_  
Director, Fish and Wildlife Service Date

Date of annual review: October 2005

Conducted by: Boqueron, Puerto Rico Field Office